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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,063	10/29/2001	Norbert Jung	DE 000189	9393

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

AKHAVANNIK, HUSSEIN

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/040,063

Applicant(s)

JUNG ET AL.

Examiner

Hussein Akhavannik

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/29/2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The specification is objected to for missing content labels:

#### Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.  
  
Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.
- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

Art Unit: 2621

- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Art Unit: 2621

- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

### ***Claim Objections***

2. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 9 limits the device of claim 8 to being arranged to carry out a method. However, the method is not specified and therefore, claim 9 does not further limit claim 8.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5 and 10, the phrase "notably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2621

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims \*\*\* are rejected under 35 U.S.C. 102(e) as being anticipated by Hoffman (U.S. Patent No. 6,437,338 B1).

Referring to claim 1, elements of at least two quantities of image points and/or groups of image points being read out at a different scanning rate is explained by Hoffman in column 4, line 61 to column 5, line 7. Hoffman explains that selected regions, 102 in figure 3, corresponding to quantities of image points, are readout at different rates, corresponding to different scanning rates.

Referring to claim 2, the image points being grouped so as to form lines of a two-dimensional image and that the lines that belong to a quantity are all read out at a uniform scanning rate is illustrated by Hoffman in figure 3 and explained in column 2, lines 36-38. The rows in a selected region 102 are each readout at a uniform scan rate as explained by Hoffman in column 4, lines 61-63 (wherein different regions are readout at different rates, but rows within a region 102 are readout at the same rate).

Referring to claim 3, the lines of image points of the image being alternately assigned to at least two quantities with different scanning rates is explained by Hoffman in column 4, line 61 to column 5, line 7. In figure 3, Hoffman illustrates plural image regions, which are each readout at different rates. So the rows from each region are assigned to different scanning rates.

Referring to claim 4, the quantities of image points and/or groups of image points overlapping at least in a region of the image surface is illustrated by Hoffman in figure 3. The drawings of the instant application illustrate a Region of Interest (ROI) surrounded by the

Art Unit: 2621

background in figure 1. Similarly, Hoffman explains that the ROI can be selected in an image in column 3, lines 44-47. Therefore, the regions 102 corresponding to the ROI would be readout at one scanning rate, whereas the regions 102 corresponding to the background would be readout at a second scanning rate. Furthermore, the regions 102 of Hoffman are all on the same image plane.

Referring to claim 6, the image sensor being sensitive to X-rays is explained by Hoffman in the abstract by the x-ray detector.

Referring to claim 8, the addressing unit being arranged in such a manner that it selects the addressable image points and/or groups of image points at a different scanning rate is explained by Hoffman in column 4, line 61 to column 5, line 7. Hoffman explains that scan sequencer 110 selects regions 102, corresponding to addressable image points, at different rates, corresponding to different scanning rates.

Referring to claim 9, the device being arranged in such a manner that it is capable of carrying out a method corresponds to claim 8.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Donges et al (U.S. Patent No. 4,736,401).

Referring to claim 5, the further processing of the signals from image points read out, notably their amplification, being performed in dependence on the relevant scanning rate of the image points is not explicitly explained by Hoffman. However, Donges et al explain that the amplification of an x-ray scanner (explained in the abstract) is controlled by the scanning rate in column 2, lines 3-8. Donges et al explain that this processing is done to maintain a constant output signal. The systems of Hoffman and Donges et al are both concerned with x-ray scanning devices as explained in the abstracts of both references. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to process the signals from image points read out, notably their amplification, dependent on the relevant scanning rate of the image points, as suggested by Donges et al, in the system of Hoffman because the images output by the detector would be more consistent.

Referring to claim 10, the reading unit being arranged in such a manner that it bases the processing, notably the signal amplification, on the scanning rate at which the relevant image points and/or groups of image points are addressed corresponds to claim 5.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Lyons et al (U.S. Patent No. 6,713,773 B1).

Referring to claim 7, the image points and/or the groups of image points that are read out at a lower scanning rate being irradiated with a lower intensity is not explicitly explained by Hoffman. However, Lyons et al explains that the irradiation dosage, corresponding to the irradiation intensity, is a product of the rate at which the beam is being scanned in column 2, lines 25-28. Lyons et al explain that such a system is capable of delivering a precise item-specific dose of irradiation in column 1, lines 15-18. The system of Lyons et al is also concerned



Art Unit: 2621

with detecting x-ray emissions as explained in the abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to irradiate image points that are read out at a lower scanning with a lower intensity, as suggested by Lyons et al, in the system of Hoffman because the dosage of radiation would be more precise.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Holmes (U.S. Patent No. 5,647,663) – To exhibit altering the intensity of x-ray beams as a function of the scanning rate as explained in column 10, lines 60-67.
- Mo (U.S. Patent No. 6,123,670) – To exhibit scanning a ROI of an ultrasound image at a different rate than the background region as explained in column 4, lines 43-53.
- Chien et al (U.S. Patent No. 6,404,938) – To exhibit reading the regions of an image at different clock speed as explained in column 3, lines 30-38.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein Akhavannik whose telephone number is (703)306-4049. The examiner can normally be reached on M-F 8:30-5:00.

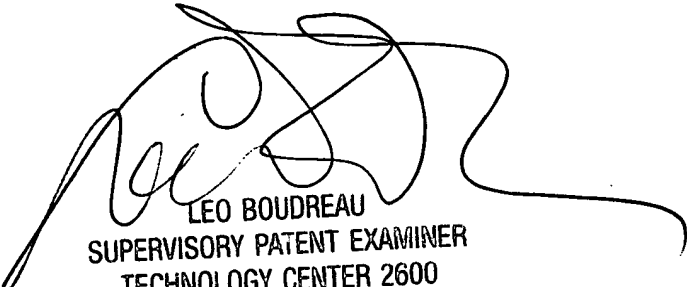
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on (703)305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein Akhavannik  
December 1, 2004

H.A.



LEO BOUDREAU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600